

## **REMARKS**

This application has been carefully reviewed in view of the above-referenced Office Action, and reconsideration is requested in view of the following remarks.

### **Telephone Interview Request**

Applicant respectfully requests the courtesy of an interview in order to expedite prosecution of the present application. The undersigned can be reached at the telephone number below.

### **Regarding the Rejections under 35 USC 103(a)**

Applicant appreciates the Examiner's detailed explanation of the response to the arguments presented in the last Office Action response.

Regarding all rejections, as the Examiner is aware in *Graham v. John Deere*, 383 U. S. 1 (1966), the Supreme Court set out a framework for applying the statutory language of §103 in making an objective analysis of obviousness. The Court stated that "under §103, the scope and content of the prior art are to be determined; differences between the prior art and the claims at issue are to be ascertained; and the level of ordinary skill in the pertinent art resolved. Thus, it is noted that in order to establish *prima facie* obviousness, the Office must establish the scope and content of the prior art in order to meet the requirements set out in the *Graham v. Deere*. In so doing, the Office must identify each element claimed.

The Office apparently asserts that Applicant has argued the references individually rather than arguing the combination. This is clearly an erroneous assertion and mis-application of the relevant case law. In order to ascertain the scope and content of the prior art, the references MUST be considered individually for what they individually teach. Applicant did so and presented his findings in the prior response and stands by the analysis. Applicant then concludes the arguments with "the Flickinger and Hoarty references, singly or in combination do not disclose or teach the claim elements recited, *inter alia*, of claims 1, 15, 26 and 28. ... Thus, the combination of the Flickinger and Hoarty references does not provide the disclosure necessary to render claims 1, 15, 26 and 28 obvious." (emphasis in original) This is clearly an argument

directly toward the Office's failure to properly assess the the scope and content of the prior art and is entirely proper. Clearly, Applicant is not guilty of the asserted improper analysis. Applicant has merely analyzed the references for what they individually fail to disclose in order to reach a conclusion that the Office has erred in making a determination as to the scope and content of the prior art and later asserts this error in the combination. Moreover, the arguments presented are in direct response to assertions made by the Office. A failure of either of the references to disclose the claim elements is a valid reasoning to combat an assertion of obviousness under the *Graham* factual inquiries. Hence, the argument at the top of page 3 and spanning pages 4-5 of the Office Action that Applicant is arguing the references individually is without merit. Reconsideration and allowance are respectfully requested.

The Office then apparently asserts at the first full paragraph of page 3 that certain teachings of Flickinger are implicit. However, the Office has admitted that the Flickinger reference does not disclose or teach which PID is the "original" content. Moreover, while it is known that separate PIDs are used for separate television programs, use of PIDs as disclosed and claimed to identify macroblocks of substitute content is neither taught nor suggested by the cited art singly or in combination.

The Hoarty reference is presented in an attempt overcome the shortcomings of the Flickinger reference (both of which are argued by the Office individually as meeting certain claim features). However, one must look at the Hoarty reference for what it actually teaches. Hoarty teaches generation of graphics overlay (e.g., from 32) by replacement of macroblocks of data. Substitution of one macroblock for another in the picture is achieved as described in col. 3, lines 35-47 as follows: "The I-frame data in buffer 43 is selectively inserted in the source 1 MPEG2 encoded data stream in the following manner. The source 1 data stream is run through macroblock detector 46 to detect macroblocks, and its output is provided to the matte substitution processor 44. Matte mask storage register 45 stores the addresses of the macroblocks constituting the matte mask of FIG. 2, and provides data to the matte processor 44. Whenever the processor identifies a macroblock (regardless whether I-, B-, or P-frame) from detector 46 that lies outside (or, alternatively, inside) the matte region defined in register 45, it substitutes an I-frame macroblock of the corresponding address from I-frame buffer 43." (emphasis added)

Clearly, the substitution described in Hoarty uses macroblock addresses as defined by a matte mask as the exclusive indication of which macroblocks to substitute as depicted in Fig. 1 and Fig. 2. Hoarty requires no knowledge of which PID is associated with the “Data In” from Source 1 and no need to know since the content from Source 2 is designed to be positioned in a particular position defined by the matte mask within the video frame without regard for the content of the remainder of the video frame. Moreover, designation of a PID for Source 2 would appear to be illogical since PIDs are normally used for demultiplexing data in the MPEG data stream. Since Source 1 and Source 2 are not multiplexed per se, there is no motivation to assign additional overhead to the Source 2 data.

Hoarty defines this substitution using a “matte mask as described in col. 2, lines 33 – 44, which states “In accordance with MPEG2 encoding, successive contiguous 16X16 square arrays (herein called "macroblocks") of pixels are identified over the entire picture area; a sample macroblock is shown as item 11 in FIG. 1. Each macroblock in the picture area is given a unique numerical address, in the general manner illustrated in FIG. 1, corresponding to its location in the picture. ... The boundary between regions A and B in FIG. 1 is defined by a matte mask, shown in FIG. 2, that specifies the macroblock addresses that are included (or, alternatively, excluded) in region A.” (Emphasis added)

If the Hoarty reference is combined with the alleged teachings of Flickinger, and PIDs are used to distinguish one set of content for another, Hoarty’s matte mask (a foundation element of his invention as both taught and claimed) is rendered totally useless as best as Applicant can determine since the substitution would be pre-determined by packet identifiers (PIDs) rather than by a matte mask. Moreover, for the use of PIDs to make any sense, it would seem that the streams would have to be multiplexed only to later be demultiplexed.

The Office is respectfully reminded that if the proposed modification or combination of the prior art would change the principle of operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims *prima facie* obvious. (MPEP § 2143.01, VI citing *In re Ratti*, 270 F.2d 810, 123 USPQ 349 (CCPA 1959)). Further, “[i]f [a] proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the

proposed modification.” (MPEP § 2143.01, V citing *In re Gordon*, 733 F.2d 900, 221 USPQ 1125 (Fed. Cir. 1984), emphasis added). Hence, if PIDs determine the substitution, the entire principle of operation of Hoarty is both modified and his matte mask and overlay function is fully defeated and apparently rendered useless. This is without question an improper combination of references. Reconsideration and allowance are respectfully requested.

It is noted that the Hoarty reference teaches that the content that is used as an overlay is from a separate source (source 2) from the MPEG data in (source 1) and is intended for use of graphics overlay purposes as in an interactive TV. Hence, Hoarty has no need to know what PID or program is on source 1 in order to do an overlay of graphics to the frame. In contrast, as claimed, applicants claims specify that the PIDs themselves determine the substitute content as well as the original content and there is no restriction or limitation in the bounds of a matte frame as is imposed by Hoarty. Again, clearly this is an improper modification of the operation of Hoarty without any viable justification.

Hence, the combination of Flickering and Hoarty fails to establish *prima facie* obviousness for failure to identify all claim elements and for changing a principle of operation of the Hoarty reference. Reconsideration and allowance are respectfully requested.

In the present Office Action, Fairhurst is combined with the Flickering and Hoarty references to assert obviousness. As previously explained, the rejection is defective on its face since the combination of Flickering and Hoarty as proposed is improper. Ergo, that combination with Fairhurst is equally improper. Reconsideration and allowance are respectfully requested.

The Office explains that “Flickering does not specifically reference ‘each PID is associated with one or more macroblocks of content’”. Applicant agrees and notes that for the reasons outlined above, the teaching cannot properly be attributed to Hoarty in the improper combination. Reconsideration and allowance are respectfully requested.

The Office asserts that [0041] – [0042] of Flickering “implicitly” teaches substitution of macroblocks. Applicant finds this to be in error. Flickering teaches substitution of time intervals or “avails” of content with absolutely no apparent implication of macroblock substitution. Reconsideration and allowance are respectfully requested.

As best understood, the Fairhurst reference is apparently asserted as reinforcement to the notion that separate PIDs can be used to represent separate streams of content. While this is true, there is no teaching or suggestion that such streams identified by separate PIDs can be a stream of macroblocks that does not – by itself – make up a full picture. MPEG encoding is designed to compress full pictures by use of macroblocks and motion vectors. There is no implication or teaching that a stream of macroblocks with a separate PID designation can be used as substitute content for substitution in another stream of content designated by a different PID. Hence, the Fairhurst reference adds nothing to support this notion to the proposed combination of references. Accordingly, the rejection is flawed and reconsideration and allowance are respectfully requested.

Specifically regarding claims 15-29, the Office admits on page 17 that Flickinger does not use the term PID mapping and looks to Bryant (individually) to provide the missing teaching for use in combination with the above three references to remedy this shortcoming. All arguments against the combination of Flickinger, Fairhurst and Hoarty are equally applicable here and are reiterated by reference thereto.

The Bryant reference fails to supply the missing teaching. In Bryant, as understood, substitute content can be inserted by transmission of a new PMT which does not modify the PIDs. At col. 7, line 35, PIDs are changed, but it is important to note that PIDs are changed to “during fill segments”. There is no explicit or implicit teaching of remapping PIDS for macroblocks, but rather for time intervals. Hence, the asserted claim features are not met by Bryant rendering the combination of references further defective in meeting all claim features. Reconsideration and allowance are respectfully requested.

New claim 30-38 is presented for the Examiner’s consideration. The feature of selection of decoder modes is supported in the private data syntax table of page 23 of the specification.

While Applicant’s above arguments and prior arguments which are incorporated herein by reference thereto are adequate to overcome the present rejection, Applicant has presented

several amendments and several in an effort to clarify the claim language and provide alternatives to assist the Examiner in reaching a conclusion favorable to Applicant. Applicant is prepared to appeal the present rejections, but would far prefer to reach an agreement on allowable subject matter before the Examiner in order to avoid the expense of appeal. Accordingly, the undersigned again respectfully requests an interview to resolve any outstanding issues.

The undersigned additionally notes that many distinctions exist between the cited art and the claims. However, in view of the deficiencies discussed above, further discussion is believed to be unnecessary at this time. Failure to address each point raised in the Final Office Action should accordingly not be viewed as accession to the Examiner's position or an admission of any sort.

No amendment made herein was related to the statutory requirements of patentability unless expressly stated herein. No amendment made was for the purpose of narrowing the scope of any claim unless an argument has been made herein that such amendment has been made to distinguish over a particular reference or combination of references.

Respectfully submitted,

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